

NIGERIA'S CENTER(S) OF GRAVITY; A COMPLEX AND VIOLENT OPERATIONAL ENVIRONMENT

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USAWC STRATEGY RESEARCH PROJECT

NIGERIA'S CENTER(S) OF GRAVITY; A COMPLEX AND VIOLENT OPERATIONAL ENVIRONMENT

by

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ABSTRACT

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This paper examines the history and value of the center of gravity concept, and the use of an analysis of the political, military, economic, social, infrastructure, and informational systems to define Nigeria's operational environment and determine Nigeria's current strategic and operational center(s) of gravity. Through a PMESII analysis, I determined that the president of Nigeria, Yar'Adua, is the strategic center of gravity. The Nigerian president has the support of the Nigerian army who demonstrated its loyalty to the president, including Yar'Adua, by obeying orders to withdrawal from the Bakassi peninsula in 2006, and their continued engagement of the violent militants in the oil-rich Niger Delta. Another critical capability for the president is Nigeria's oil-rich economy, which I find to be the country's operational center of gravity. Nigeria's oil and gas production account for 85% of government revenues, 99% of export earnings, and 52% of the country's GDP. The U.S. imports 11% of its oil from Nigeria. The Chinese have taken a significant interest in securing oil resources and investments in Nigeria. However, Nigeria's president is facing increasing violence in the Niger Delta, and ethnic and religious clashes with a radical Islamic presence in the muslim-north of the country.

NIGERIA'S CENTER(S) OF GRAVITY; A COMPLEX AND VIOLENT OPERATIONAL ENVIRONMENT

In his classic 18th century work, *On War*, Carl Von Clausewitz espoused a theory of a center of gravity when he wrote,

One must keep the dominant characteristics of both belligerents' in mind. Out of these a certain center of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed.¹

Clausewitz's notion of a center of gravity (COG) is now incorporated into Joint U. S. military doctrine and its merits have been the subject of a vigorous debate among civilian academic and military scholars over the last quarter of a century.² Defining a center of gravity is further complicated by the fact that "each service has its own operational art and takes its own approach to defining and applying the COG concept."³

Joint Publication 3-0 defines center of gravity as "the source of power that provides moral or physical strength, freedom of action, or will to act."⁴ COGs are born out of the relationships between two enemies both pitting their moral wills and physical strengths against the other.⁵ As JP 5-0 states, "the COG is always linked to the objective."⁶ When an objective changes, the COG may also change.⁷ At the strategic level of a conflict, "a COG may be military force, an alliance, political or military leaders, a set of critical capabilities or functions or functions, or national will."⁸ As JP 5-0 points out, at the operational level a COG is often associated with an enemy's military strength, such as a unique, special operations capable unit like the United States Marine Corps.⁹ However, the operational COG could also include other enemy capabilities in the operational environment including the enemy's political, economic, social, infrastructure, and information systems.¹⁰ In addition to identifying the

adversaries COG, its imperative that commanders not ignore the identification and protection of their own COG.¹¹ As an example, JP 3-0 notes that during the 1990-91 Persian Gulf War, American commanders identified the coalition itself a friendly COG. In turn, the U. S. Combatant Commander used his resources to protect it from harm, including the staging of theater missile defense systems.¹²

All COGs have critical capabilities which are defined as crucial enablers for the enemy's COG to function and essential to the accomplishment of the enemy's assumed objectives.¹³ In the words of Dr. Joseph Strange, a prominent writer on COG theory at Marine Corps University, critical capabilities are defined as "the primary abilities which merit a center of gravity to be identified as such in the context of a given scenario, situation, or mission."¹⁴ As noted in JP 3-0, critical capabilities also permit an enemy's COG to resist America's military end state.¹⁵ These same critical capabilities also have critical requirements which are "those essential conditions, resources, and means for a critical capability to be fully operational."¹⁶ In turn, these critical requirements have critical vulnerabilities which are defined as those "aspects or components of the adversary's critical requirements which are deficient or vulnerable to direct or indirect attack that will create decisive or significant effects disproportionate to the military resources applied."¹⁷ Together, critical capabilities, critical requirements, and critical vulnerabilities are referred to as critical factors.¹⁸

As the Joint Force Commander's (JFC) staff executes the operational design process, its imperative that they identify friendly and adversary COGs.¹⁹ A "systems perspective of the environment" assists the JFC and staff in identifying an adversary's COG and their critical capabilities, critical requirements, and critical vulnerabilities.²⁰ A

systems perspective of the operational environment calls for an understanding and analysis broader than just an adversary's military forces and combat capabilities.²¹ As stated in JP 5-0, "the JFC and staff must understand strengths and weaknesses in other operational environment systems (political, social, economic, infrastructure, informational, etc.) and their interaction with the military system."²²

The JFC staff:

analyzes the relevant systems in the operational environment based on understanding strategic objectives, desired effects, and the joint force mission. This analysis identifies a number of **nodes**—the people, facilities, individual systems, forces, information, and other components of the system. The analysis also attempts to identify **links** ---the behavioral, physical, or functional relationship between nodes. Identifying nodes and their links helps the staff assess the systems' important capabilities and vulnerabilities. This analysis identifies the interrelationship of systems and capabilities within or in support of a given COG. A clear understanding of these relationships will help the JFC and staff in the identification of effective options to defeat the COG.²³

The purpose of the author's SRP is to conduct an analysis of Nigeria's political, military, economic, social, and informational (PMESII) systems to define the operational environment and to determine Nigeria's current strategic and operational center(s) of gravity.

Federal Republic of Nigeria

Systems of Systems Analysis Baseline - Political

Nigeria was granted independence from the United Kingdom in 1960. After nearly 16 years of military rule, a new Nigerian constitution was adopted in 1999. With the adoption of the new constitution, Nigeria experienced a peaceful transition to civilian governance.²⁴ However, since the end of military rule in 1999, Nigeria has experienced unrest due to ethnic and religious conflicts, community conflicts, and resource-related

conflicts.²⁵ The Department of State, Bureau of African Affairs, reports that “since 2006, violence, destruction of oil infrastructure, and kidnappings of primarily expatriates in the oil-rich Niger River Delta has intensified as militants demanded a greater share of federal revenue for states in the region, as well as benefits from community development.”²⁶ In May 2006, the National Assembly refused to amend Nigeria’s constitution in order to allow a third presidential term for President Olusegun Obasanjo.²⁷ In April 2007, Umaru Musa Yar’Adua was elected president. Yar’Adua’s election was controversial.²⁸ U.S. and world observers reported a seriously flawed election process involving malfeasance and vote rigging.²⁹ However, with Yar’Adua’s election, Nigeria experienced “the first civilian to-civilian transfer of power in the country’s history.”³⁰ President Yar’Adua assumed office on 29 May 2007.³¹

According to the International Crisis Group (ICG), “Nigeria’s democracy is in crisis.”³² Nigerians and the many international observers opined that the 2007 elections were the most poorly organized and corrupt in the nation’s history.³³ In what is described as a “bitterly contentious environment,” outgoing Nigerian President Obasanjo and his People’s Democratic Party (PDP) “acted with unbridled desperation to ensure sweeping, winner-take all victories, not only in the presidency and federal legislature but also in state governorships and assemblies.”³⁴ The election was marked by widespread violence which resulted in the deaths of over 200 people.³⁵ Nigerian observers offered scathing commentary on the elections as well.³⁶ Nigeria’s Transition Monitoring Group, a group of civil society election observers, called for a complete re-run of Nigeria’s presidential elections and a re-run of 10 states’ state level polls.³⁷ Of particular note is the reaction of the Nigerian press. One newspaper in Lagos, *The*

Nation, spoke for other media outlets when it called the election “an embarrassment.”³⁸

Umaru Musa Yar'Adua, a member of the PDP, was the declared winner of the presidential election and assumed office on 29 May 2007 with “less legitimacy than any previously elected president and so with less capacity to moderate and resolve its violent domestic conflicts.”³⁹

Nigeria's Independent National Electoral Commission (INEC) failed to ensure an impartial and fair election.⁴⁰ Instead, Nigeria experienced extensive vote rigging and intimidation of voters.⁴¹ There were several instances when deployed police turned a blind eye while stuffing of ballot boxes, underage voting, and false thumbprinting occurred.⁴² On occasion, PDP political leaders had police hijack ballot boxes from election officials at gunpoint.⁴³ In the state capital of Ondo, the police provided cover for the PDP to stuff ballot boxes for the PDP candidates.⁴⁴ According to the ICG, the involvement of the police in rigging is, “more fundamentally a symptom of the force's crisis of professionalism.”⁴⁵ In an interview with the ICG, a senior retired police commissioner stated that as presently trained and educated, the Nigeria police will always view their allegiance to the governing party.⁴⁶ The retired officer stated that this is first because the policemen cannot distinguish “ruling party” and “government.”⁴⁷ Secondly, the officer opined that as long as political control of the police forces rests solely on the shoulders of the president, no officer would want to risk his job and career by refusing to support Nigeria's president and his party.⁴⁸

Although the U.S. Department of State expressed the U.S. “regret” that Nigeria had “missed an opportunity to strengthen an element of its democracy through a sound electoral process,” the same statement declared the U.S. was ready to work with the

new government elect to build on their “excellent bilateral relations.”⁴⁹ In fact, on 13 December 2007, President Yar’Adua met with President Bush in the Oval Office and President Bush praised the Nigerian president for being “committed to democracy and rule of law.”⁵⁰ President Yar’Adua stated he briefed President Bush “on the situation in Nigeria...efforts to anchor democracy in rule of law; to help a credible electoral process; and to ensure that the principles of justice, equity will guide the conduct of affairs in Nigeria—transparency, accountability and the fight against corruption.”⁵¹ President Yar’Adua also expressed appreciation for Nigeria’s friendship and support from the American government and its people.⁵² The U.S. and Nigerian relations have improved since the “deeply flawed” April 2007 elections.⁵³

To many observers, President Yar’Adua faces a “crisis of legitimacy” due to the fraud that permeated his electoral victory.⁵⁴ Nigeria’s two largest opposition parties, the All Nigeria Peoples Party (ANPP) and the Action Congress (AC) have rejected the 2007 election results. The Campaign for Democracy, which led the campaigns to end military rule in the 1990s, announced it would “challenge the legitimacy of the government by any means possible.”⁵⁵

However, some observers see encouraging signs with President Yar’Adua’s promises of reform.⁵⁶ In his inaugural address, President Yar’Adua conceded that Nigeria’s electoral process was flawed.⁵⁷ Another encouraging note is President Yar’Adua’s appointment of a panel of government officials, members of civil society, and former judges to recommend reforms to Nigeria’s electoral institutions.⁵⁸ In fact, INEC rescheduled elections in the states of Delta, Edo, Enugu, Imo, and Ondo due to widespread allegations of threats of violence, fraud, or voters unable to cast their voting

ballots.⁵⁹ The results of some of those repeat elections have been challenged in the Nigerian courts.⁶⁰ As of December 2007, the election results of five governor races have been overturned.⁶¹ A special court hearing the challenge to President Yar'Adua's election victory is expected in early 2008.⁶²

In the meantime, President Yar'Adua had a successful visit with President Bush in December 2007.⁶³ Also, Human Rights Watch recently noted "encouraging gestures of respect for the rule of law and the notion of transparency in government."⁶⁴ President Yar'Adua also "weathered" challenges to his administration including a general strike by labor unions disgruntled about a rise in fuel prices and a value added tax.⁶⁵ In response to the labor union strike, President Yar'Adua reduced the fuel price hike and went a step further and committed to a review of privatization deals on two of the countries refineries.⁶⁶ On another positive note, President Yar'Adua also announced his commitment to combating corruption and restructuring Nigeria's oil and gas industry.⁶⁷

President Yar'Adua faces an important challenge in the volatile oil-rich Niger Delta. The region is vital to the U. S. as well, particularly since Nigeria provides 10-12% of U.S. oil imports.⁶⁸ In his inaugural speech, President Yar'Adua called for an end to the bloodshed in the oil-rich but impoverished area which has caused a 25% decrease in oil production.⁶⁹ Since the end of 2005, the Niger Delta's on- and off-shore oil fields have "essentially become ungovernable."⁷⁰

The crisis deepened in 2006 when an emerging militant group called the Movement for the Emancipation of the Niger Delta (MEND) intensified attacks on oil installations, most run by Shell-Nigeria.⁷¹ MEND and other groups have killed Nigerian soldiers and security personnel, kidnapped foreign oil workers, carried out lethal car

bombings, and they've also demonstrated their reach by overrunning an oil rig 40 miles offshore in the Gulf of Guinea.⁷² MEND demands the Nigerian government withdraw troops, grant oil revenue concessions to Delta groups, and release jailed ethnic leaders.⁷³ The attacks have successfully shut down the flow of more than 500,000 barrels of the black gold oil, forcing the Nigerian government to tap off-shore reserves to offset the lost revenue.⁷⁴ MEND has threatened in the past to shut everything down.⁷⁵ One MEND spokesman bragged to the press: "We will wipe out the Nigerian oil export industry in one swipe."⁷⁶

The daily price of oil climbed with each attack.⁷⁷ On 2 January 2008, CNN announced that oil prices reached \$100 a barrel due in part to violence in oil rich Nigeria. On 1 January 2008, armed men invaded Port Harcourt, the hub of Nigeria's oil industry, and attacked two police stations and raided the lobby of a major hotel. The attacks resulted in the deaths of four policemen and three civilians. Six attackers were also killed. The Niger Delta Vigilante Movement (NDVM) claimed responsibility for the Port Harcourt attacks.⁷⁸ Another group, the National Delta People's Volunteer Force (NDPVF), has also carried out a series of attacks against government forces, demanding autonomy in the region and a slice of oil revenues.⁷⁹

The ICG notes that the root cause of the Niger Delta insurgency are well known.⁸⁰ According to the ICG, "violence, underdevelopment, environmental damage and failure to establish state and local government institutions have contributed to mounting public frustration at the slow pace of change under the country's nascent democracy, which is dogged by endemic corruption and misadministration inherited from its military predecessors."⁸¹ It no wonder the people in the Delta are upset with the government. In

2005, Nigeria made an estimated \$45 billion in oil export revenues.⁸² However, the slow pace of “systemic reforms” and the lack of schools, jobs, electricity, and health clinics have bolstered peoples support to insurgents such as MEND.⁸³ Youth groups have led increasingly violent attacks in the Delta with demands for access to the oil wealth in their regions.⁸⁴

In the international arena, President Yar’Adua faces a challenge from his own senate over the transfer of the Bakassi peninsula to Nigeria’s neighbor, Cameroon.⁸⁵ The Bakassi extends into the Gulf of Guinea, an area rich in oil and gas reserves.⁸⁶ In 2006, Nigeria and Cameroon reached an agreement over the long-standing border dispute regarding the oil-rich peninsula.⁸⁷ In 2002, the International Court of Justice (ICJ) ruled that the Bakassi peninsula belonged to Cameroon.⁸⁸ Tensions remained however and the transfer of the peninsula was delayed.⁸⁹ Finally, in 2006, the presidents of Nigeria and Cameroon met with United Nations Secretary Kofi Annan and then-Nigerian President Obasanjo agreed to withdraw Nigerian troops from the peninsula and transfer complete control to Cameroon within two years.⁹⁰ On 14 August 2006, Nigeria ceded Bakassi to Cameroon in compliance with the ICJ ruling of 2002.⁹¹ However, the peninsula will stay under Nigerian civilian control until 2008.⁹² A “mixed commission” is currently conducting a demarcation of the villages along the border.⁹³

However, some people in the region have refused to accept the transfer of the peninsula to Cameroon. In November 2007, militants killed 21 Cameroonian soldiers on the Bakassi peninsula⁹⁴ A Cameroonian military source told Reuters that a “suspected militant group from Nigeria” was responsible for the attack.⁹⁵ A senior Nigerian government official said no Nigerian armed forces were involved in the attack on the

Cameroon troops and he cited a recent attack by gunmen on Nigerian forces in the same area just the week before.⁹⁶ Militants in the oil-rich Niger Delta region also denied their involvement.⁹⁷ Two weeks after the attack, the Nigerian senate voted to void the transfer of the Bakassi peninsula to Cameroon.⁹⁸ The Nigerian senate claimed the transfer was illegal since it had not been ratified by Nigeria's National Assembly.⁹⁹ President Yar'Adua has asked the senate to ratify the agreement to comply with the ICJ ruling of 2002.¹⁰⁰

President Yar'Adua has to contend with the estimated 150,000-300,000 inhabitants of the Bakassi peninsula who have condemned Nigeria's decision to transfer what they call their ancestral land.¹⁰¹ Nigerian inhabitants have been given the choices of being resettled in Nigeria or staying under Cameroonian governance.¹⁰² In August 2006, a group called the Bakassi Self-Determination Movement declared its independence from both Cameroon and Nigeria.¹⁰³ Some young men in Bakassi intend to fight any Cameroonian attempt to govern the place.¹⁰⁴ Reportedly, these young men asked the militants from the Niger Delta to help them in their resistance to Cameroonian rule.¹⁰⁵

Systems of Systems Analysis Baseline – Military

The Nigerian military's main focus is currently centered on combating MEND in the Niger Delta.¹⁰⁶ As the majority of Nigeria's wealth is derived from oil revenues generated in the oil-rich Delta, the country's security forces are intent "on regaining a measure of stability in the area so that oil companies can extract petroleum without the threat of kidnappings, ambushes, and sabotage to key infrastructure."¹⁰⁷ The army has also been engaged in the muslim north as well. In November 2007, Nigerian security forces

arrested a group of Islamic militants with alleged ties to Al Qaeda.¹⁰⁸ The group was charged with plotting to attack Nigerian government buildings.¹⁰⁹

Nigeria ranks 8th among the world's troop providers to U. N. peacekeeping missions spanning the globe.¹¹⁰ Nigeria has particularly played a vital role in peace and stability operations across the African continent.¹¹¹ As of July 2007, Nigeria contributed 2,070 military troops that deployed to eight United Nations peacekeeping missions, with most of them assigned to Liberia.¹¹² Despite a recent reluctance to support peacekeeping missions, the Nigerian government agreed to deploy approximately 2,000 troops to Sudan in 2004 as part of a protection force for the African Union efforts in Sudan.¹¹³ According to Jane's, it's likely that the new Nigerian president, Yar'Adua, will focus more attention on fighting the rising militants in the Delta rather than providing military resources to peacekeeping missions.¹¹⁴

According to the U. S. Department of State, the three Nigerian armed services total 76,000 active duty personnel.¹¹⁵ The Nigerian Army is the largest of the services with roughly 60,000 soldiers "deployed in two mechanized infantry divisions, one composite division (airborne and amphibious), the Lagos Garrison Command (a division size unit), and the Abjua-based Brigade of Guards."¹¹⁶ The Army has demonstrated it can deploy and sustain battalions in support of peacekeeping operations.¹¹⁷

The Nigerian Navy with its 7,000 sailors has frigates, fast attack boats and coastal patrol boats.¹¹⁸ According to Jane's, "Nigeria's naval assets are woefully inadequate to patrol and police her claimed waters, which contain billions of dollars in oil extraction infrastructure and are the economic engine of the entire state."¹¹⁹ All the ships in the Navy need repair, spares, and upgrades.¹²⁰

The Nigerian Air Force with its 9,000 airmen flies transport, trainer, and rotary and fixed wing aircraft.¹²¹ However, most of the aircraft is currently not operational.¹²² In December 2007, the Chief of Staff of the Nigerian Air Force informed the Nigerian House of Representatives that all fighter jets have been grounded due to lack of funds to maintain the aircraft.¹²³

Systems of Systems Analysis Baseline – Economic

Nigeria, a member of OPEC, is Africa's largest oil producer and the eleventh-largest producer in the world.¹²⁴ Nigeria's natural gas reserves also rank as the world's ninth largest, with significant potential for further discoveries.¹²⁵ Nigeria's economy relies heavily on the oil sector.¹²⁶ The World Bank reports that "oil and gas production account for 85% of government revenue, 99% of export earnings, and 52% of the country's Gross Domestic Product (GDP)."¹²⁷ Nigeria produces approximately 2.5 billion barrels of oil per day.¹²⁸ Its oil reserves are estimated at 35.2 billion and the Nigerian government plans to increase the production to 40 billion barrels by the end of the year 2010.¹²⁹ However, despite this wealth in oil revenues, more than 70% of Nigerians live in poverty.¹³⁰ The United States continues to be Nigeria's largest customer for crude oil, which amounts to 40% of Nigeria's total oil exports.¹³¹ According to Department of State, "Nigeria provides about 11% of overall U. S. oil imports and ranks as the fifth-largest source for imported oil."¹³² In fact, America imports more oil from sub-Saharan Africa, mostly Nigeria, than from the Middle East.¹³³

Joint ventures between the state oil company Nigerian National Petroleum Corporation (NNPC) and foreign oil companies produce more than 95% of oil output in the upstream oil sector.¹³⁴ According to Jane's, Shell (United Kingdom-Netherlands) is

the largest producer while ChevronTexaco, ExxonMobil (United States), Eni-Agip (Italy), and Total (France) all have major interests in Nigeria.¹³⁵ However, as the global demand for energy increases, the U.S., Europe and Japan are now facing a new strong competitor for long term energy resources: China.¹³⁶ China's GDP growth hit 10.7% in 2006.¹³⁷

In 2003, China became the second largest consumer of petroleum products in the world, second only to the United States.¹³⁸ According to U. S. Energy Information Administration, China was responsible for 40% of total growth in the world's demand for oil from 2003-2006.¹³⁹ In 2004, China's oil consumption increased by 15% while its output grew by only 2%.¹⁴⁰ In fact, China's 2004 consumption of oil number increased 16% over its consumption figure for 2003. China is obviously experiencing a dramatic increase in its demand for oil. It's estimated that by 2010, China will depend on imports for 45% of its oil.¹⁴¹

China is on a quest to obtain raw materials and energy around the globe to feed its continuing economic growth.¹⁴² China's tremendous need to feed its booming economy has spurred it to seek oil resources in several African countries, including Nigeria.¹⁴³ According to Ian Taylor, writing in "International Affairs," "its argued that Chinese oil diplomacy has two main goals: in the short term, to secure oil supplies to help feed growing domestic demand back in China; and in the long term, to position China as a global player in the international market."¹⁴⁴

China has taken an aggressive interest in securing oil resources in Nigeria. In 2005, PetroChina and the Nigerian National Petroleum Corporation entered into an \$800 million crude oil sale deal to supply China with 30,000 barrels of crude oil per

day.¹⁴⁵ Furthermore, China's national petroleum company, CNOOC, reached an agreement with Nigeria to buy a Nigerian offshore oil and gas field for \$2.3 billion.¹⁴⁶ The CNOOC agreed to buy a 45% in the license covering the OML 130 field, a field located in the deep water near the oil rich Niger Delta.¹⁴⁷ In a BBC interview, CNOOC's company chairman and chief executive commented that the CNOOC purchase would give it access to "an oil and gas field of huge interest and upside potential in one of the world's largest oil and gas basins."¹⁴⁸ Recently, the Nigerian government also announced that it has given state-run China Petroleum Corporation (CNPC), the first right of refusal on four oil exploration blocks, two of which are in the rich oil producing Niger Delta and the two others in the Chad basin, in exchange for a commitment to invest 4 billion dollars in Nigeria's oil and infrastructure.¹⁴⁹ The deal involves Beijing purchasing a controlling share in Nigeria's 110,000-barrel-a-day oil refinery in Kaduna. Business analysts report the deal is favorable for both sides.¹⁵⁰ According to the "International Business Times," "China, the world's most populous nation, needs more imported fuel to fuel its economy. Nigeria, Africa's most populous nation but also one of the world's poorest, needs foreign investment to speed development."¹⁵¹ On a humanitarian note, China also granted Nigeria a \$5 million package to combat malaria.¹⁵² Furthermore, pursuant to a 2006 agreement between China and Nigeria, China's Eximbank extended a \$500 million export credit to Nigeria for infrastructure development.¹⁵³

China has also invested substantially in Nigeria's transport sector.¹⁵⁴ In 2007, China agreed to assist the Nigeria government in improving the country's dilapidated railway system.¹⁵⁵ The first phase of the contract calls China's construction of 1,315 km

of double-track, standard gauge line from the Lagos in the southwest to Kano in the north with a track also going from central Minna to Abuja, Nigeria's capital city.

Nigeria's railway system has been in a steady state of decline in last 20 years due to years of corruption, financial, and administrative problems which has resulted in an aged, and dilapidated infrastructure, and unpaid workers and retirees of the Nigerian Railway Corporation, a Nigerian government entity.¹⁵⁶ Ogaba Oche, a senior researcher at the government-run Nigerian Institute of International Affairs, in an interview with Inter Press Service News Agency, stated that "the Chinese have a better understanding of the Nigeria's economy than the developed countries of the West."¹⁵⁷ Oche added, "A large part of China is still rural and on the same economic development level as we are, so they understand us better. The Chinese government also deals with developing countries on the basis of equality, and they are not tampering with the internal economy and politics of the African countries."¹⁵⁸

China is not immune from charges of exploitation.¹⁵⁹ In April, 2006, a car-bomb attack near an oil refinery in Nigeria's Delta region was specifically aimed as a warning against China's expansion in the region.¹⁶⁰ The militant Movement for the Emancipation of the Niger Delta stated, "We wish to warn the Chinese government by investing in stolen crude places its citizens in our line of fire."¹⁶¹ Chinese oil workers are also not immune from kidnapping. In early 2007, assailants released nine Chinese oil-worker captives who were seized along with more than two dozen other foreign workers in the Niger Delta.¹⁶² Nigerian's southern Niger Delta region contains a huge amount of oil however most of the regions people are impoverished. Several militant groups are fighting to force the Nigerian federal government to provide their regions with a greater

percentage of the oil revenues.¹⁶³ It is estimated that more than 100 hostages were taken in a year's time in which militant violence cut more than one quarter of Nigeria's standard 2.5 million barrel-per-day of crude oil output.¹⁶⁴

Nigeria has been adversely impacted by the resource that gave it hope, the black gold known as oil, which according to one source, accounts for 95% of Nigeria's export earnings and 80% of its revenue.¹⁶⁵ According to the U. S. Department of State, the oil boom in the 1970s influenced Nigeria to neglect its strong agricultural base "in favor of an unhealthy dependence on crude oil."¹⁶⁶ Nigeria, Africa's most populous country with a population of 130 million, has gone from being a country self-sufficient in food to importing more than it produces.¹⁶⁷ However, agriculture still accounts for over 41% of Nigeria's GDP and two-thirds of employment.¹⁶⁸ According to the U. S. Department of State, agriculture is responsible for a "big chunk of non-oil growth" which hit 9% in 2006.¹⁶⁹ However, Nigerians are no longer self-sufficient in basic foodstuffs and are dependent on importing staple foods such as rice and wheat, and live animals from neighboring nations.¹⁷⁰ According to Janes, 60% of the population remain dependent on agriculture, however, most of them grow subsistence crops largely for their own consumption.¹⁷¹ Cocoa remains the only export crop of any importance, however, cattle ranching in north Nigeria remains a major industry.¹⁷² According to the U. S. Department of State, Nigeria is no longer considered a major exporter of rubber, palm oil, peanuts, or cocoa.¹⁷³ Cocoa production is stalled at 180,000 tons annually.¹⁷⁴ Only 25 years ago it was 300,000 tons annually.¹⁷⁵ At one time, Nigeria was the biggest producer of poultry in Africa. Now the corporate poultry output has plummeted from 40 million birds yearly to about 18 million.¹⁷⁶ Jane's reports the impediments to growth in Nigeria's agriculture

growth include “the lack of credit facilities for farmers, poor facilities for the transport and storage of harvested crops, antiquated farming methods and insufficient agricultural research and technical advice to farmers.”¹⁷⁷

Nigeria has been plagued by government corruption over the last several decades. Nigeria has earned in excess of \$400 billion in oil revenues over the last 35 years, however, \$50-100 billion of these oil revenues have simply “disappeared” due to massive corruption and fraud.¹⁷⁸ Nigeria is regularly ranked by Transparency International as one of the most corrupt nations in the world.¹⁷⁹ According to Nigeria's anti-corruption chief, Nuhu Ridadu, 70 % of Nigeria's oil wealth was wasted or stolen in 2003, however, by 2005 the number dipped to “only” 40%.¹⁸⁰ In his inaugural address in May 2007, President Yar'Adua pledged to fight corruption which he acknowledged was “central” to the poverty of most of its citizens.¹⁸¹ USAID reports that 70% of Nigerians survive on less than \$1 per day.¹⁸²

The cost of the Niger Delta insurgency has been “vast.”¹⁸³ According to an International Policy Report, in 2003 and 2004, militant attacks on oil installations decreased oil output by 40%.¹⁸⁴ The Nigerian government estimates that since 1999 the cost of instability in the Delta has totaled \$6.8 billion in lost oil revenues.¹⁸⁵ The large scale theft of oil, known as oil bunkering, involves members of the military, businessmen, and high officials in government.¹⁸⁶ Shell estimated that in 2003 oil “bunkerers” made between \$1 to \$4 billion dollars from stolen oil.¹⁸⁷ Militants use the oil theft proceeds to fund the purchase of large caches of weapons.¹⁸⁸

Drug trafficking by Nigeria became a major issue with the U.S. after the mid - 1980s.¹⁸⁹ Nigeria is not a drug-producing nation, however, its become a major transit

point for drugs.¹⁹⁰ One U.S. government source states that “an estimated 35%-40% of all heroin coming into the U.S. is brought by Nigerian couriers.”¹⁹¹ In 2003, President Bush identified Nigeria as one of 12 “major illicit drug-producing and Drug-Transit countries.”¹⁹² In fact, West Africa is the newest area for trafficking drugs into Europe.¹⁹³ Europe has a heavy demand for cocaine and heroin.¹⁹⁴ Dealers have sought new unfamiliar routes to move the drugs to Europe. Cocaine from South America is passing through west Africa’s border crossings, ports, and airports.¹⁹⁵ Heroin is also passing through these locations from Afghanistan.¹⁹⁶ Nigeria is the economic hub of West Africa which in turn has led it to become the drug-trafficking hub.¹⁹⁷ In 2006, Nigerians accounted for 44% of the west African drug traffickers arrested in Europe.¹⁹⁸

However, business experts notice improvement in Nigeria’s economy.¹⁹⁹ According to one source, “It is growing at about 6% a year, while inflation is down to single figures, about four times less than the rate of 2000.”²⁰⁰ The growth is attributed to better fiscal management which has drawn more foreign currency in the Nigerian banks and more foreign investment.²⁰¹

Systems of Systems Analysis Baseline – Social

Nigeria is composed of an estimated 250 to 300 different ethnic groups with as many as 60 living in the Niger Delta alone.²⁰² Ten ethnic groups account for approximately 80% of Nigeria’s total population.²⁰³ The southeastern Ibo, the southwestern Yoruba, and the northern Hausa-Fulani have historically been the most dominant political ethnic groups.²⁰⁴ Nigeria’s population is estimated at 160 million people.²⁰⁵ An estimated 60 million of the population are Muslim, most of whom live in the northern half of the country.²⁰⁶ Clashes between different ethnic groups, between

Christian and Muslim, between north and south are often caused from perceived differences in access to the country's social and economic development.²⁰⁷ It's estimated that over 12,000 Nigerians have been killed in regional, ethnic, and religious clashes since 1999.²⁰⁸

Nigeria's oil rich Niger Delta and its sixty or more ethnic groups inhabit an area that covers 75,000 square miles and has 185 local government areas.²⁰⁹ The states in the Delta region "fall below the national average on virtually every measure of social and economic development."²¹⁰ For example, Baylesa and Delta, both oil-rich states, have only have one doctor for every 150,000 inhabitants. However, the rate for Nigeria as a whole comes in at around 20 per 100,000 inhabitants.²¹¹ In August 2006, the UNDP Niger Delta Development Report announced a sweeping condemnation of Nigeria's failure concluding that "vast resources" have "barely touched the Niger Delta's own pervasive poverty"²¹²

Ethnic militias in the Delta such as the Niger Delta Vigilante and the Niger Delta People's Volunteer Force have attacked oil installations and personnel.²¹³ MEND killed more than fifteen Nigerian soldiers and took an average of three hostages per month between May and August 2006. The Ijaw is the largest ethnic group in the Delta. Ijaw militants work to get a slice of the illegal oil bunkering trade, a form of theft that generates between \$1 to 4 billion annually.²¹⁴ The Ijaw have also been in a violent dispute with the Itsekiri people in the region over local political influence.²¹⁵ Youth gangs in Port Harcourt also demand a share of the oil revenue.²¹⁶ In the region, gang members and militants run in the same circles as the politicians and ethnic leaders.²¹⁷ Since

August 2007, Nigeria's army has carried out several raids on militants camps in the region.²¹⁸

The federal government has left door open for negotiations.²¹⁹ Nigeria's Vice President, Goodluck Jonathan, is an Ijaw and he has invited tribal leaders to attend a summit on the Niger Delta.²²⁰ Militant leaders may also be "silently invited" to the negotiating table as well.²²¹ Most of the peoples of the Niger Delta concur that oil production in their Delta and the pipelines have resulted in pollution and violence instead of jobs and money.²²² Most opine that the government squanders the oil wealth through corruption and in subsidizing Nigeria's northern states.²²³

In the Muslim-dominated north, twelve of Nigeria's states have adopted Sharia law within the last four years, which has resulted in much-publicized rulings, several of which have been criticized by human rights groups as well as by Nigerian in the Southern and mostly Christian part of the country²²⁴

Systems of Systems Analysis Baseline – Infrastructure

According to the U. S. Department of State, "Nigeria's publicly owned transportation infrastructure is a major constraint to economic development."²²⁵

Nigeria's principal ports are at Lagos, Port Harcourt, and Calabar.²²⁶ Nigeria's docking fees for freighters rank among the highest in the world.²²⁷ The Nigerian government requires a 100% inspection of all goods entering the country which has caused long delays for importers of goods and created further corruption as the ports lack the infrastructure to carry out the inspection.²²⁸

Nigerian roads have been subject to years of neglect and shoddy maintenance that has resulted in the deterioration of the country's road network.²²⁹ In fact, Janes

reports that 31,500 km of road that was listed as paved in 1991 has now been reduced to gravel.²³⁰ In Nigeria, goods are often damaged because of accidents caused by the bad state of most of the roadways.²³¹ Food moved on the neglected highways from the north to the southern cities spoil during the long truck trips.²³² On these roads, a truck driver can expect to travel about five days from Maiduguri in northwest Nigeria to Lagos, a distance of 1,680km.²³³

Nigeria's railway system has suffered the same neglect as the highways.²³⁴ However, in 2006, China's Civil Construction Company signed an \$8.3 contract with the Nigerian government to develop 1,315 km of double-track, standard gauge line from Lagos, a commercial hub in the southwest to Kano in the north.²³⁵ A section of rail will also be built connecting Minna in central Nigeria to Nigeria's capital city, Abuja.²³⁶

Nigeria's airports at Lagos, Kano, Port Harcourt, and Abuja all receive international flights.²³⁷ According to Jane's, "Operational and safety shortcomings have plagued the country's international and local airports, giving them a poor reputation."²³⁸

Even though Nigeria is Africa's largest oil producer, it still fails to provide enough electrical power to its own citizens.²³⁹ The supply of electricity is "sporadic" in towns and virtually "non-existent" in the countryside.²⁴⁰ The lack of government-supplied electricity has resulted in a "closet industry of private generators" providing much needed electricity to the people at ten times the cost of the government price."²⁴¹ President Yar'Adua created a National Energy Council in September 2007 with instructions to solve the power crisis in the next six months.²⁴²

Nigeria's economy is dominated by oil, however, the expansion of the country's oil sector has been "stymied by its antiquated infrastructure."²⁴³ In addition, since Nigeria's

own oil refineries are always breaking down, the oil-rich country is forced to import its own fuel.²⁴⁴ Even with the import, gas stations are often closed because there is no fuel.²⁴⁵ MEND has also intensified attacks on Nigeria's oil infrastructure, reducing the flow of oil and revenue.²⁴⁶

Systems of Systems Analysis Baseline – Information

The Nigerian media, particularly the press, has been openly critical of the government. For example, a newspaper in Lagos called the 2007 Nigerian election “an embarrassment.”²⁴⁷ However, on 17 April 2007, armed personnel from the State Security Service (SSS) along with anti-riot police stormed the Abuja studios of the leading private radio/television company in Nigeria, Africa Independent Television (AIT). The police roughed up the staff and seized film, including a documentary on past Nigeria leaders. The SSS argued that their actions were necessary due to adverse security implications which resulted from an earlier broadcast. However, the action came just before the presidential elections which caused many journalists to view the SSS actions as an attempt to intimidate AIT, a company that was providing more credible information on the state-level elections than the Nigerian government-controlled Nigerian Television Authority.²⁴⁸

For most of the 1990's, Nigeria's overall weak telephone system resulted in low usage of the internet, however, major cities such as Lagos have recently experienced the emergence of several internet cafes which has resulted in a significant increase in

internet usage.²⁴⁹ The phone system is also improving as evidenced by the number of fixed lines, 900,000, and the 3.8 million mobile lines.²⁵⁰

Analysis of PMESII

After analyzing the PMESII environment, I've determined that President of Nigeria is the country's strategic center of gravity. The democratically elected president of Nigeria also serves as commander in chief of the armed forces. The new President, Yar'Adua, enjoys the loyalty of the Nigerian army which can be defined as a critical capability for the leader. The Nigerian army demonstrated its loyalty to former President Olusegun Obasanjo in 2006 when the army complied with the President's order to leave Bakassi in spite of many Nigerians strong dissent in handing the region over to Cameroon. The Nigerian army has been fully engaged in fighting violent militant organizations in the Delta. Nigerian officers and soldiers are obviously gaining significant combat experience fighting an insurgency in the region. As I discussed earlier, Nigerian security forces have also been engaged in the muslim-dominated north. This past November, Nigerian security forces arrested Islamic militants in the north who were planning to attack government buildings. The group had alleged ties to Al Qaeda.²⁵¹ The author asserts that the Nigerian army and security forces, both critical capabilities, have consistently demonstrated their loyalty to the president who also serves as commander-in-chief of the armed forces.

In my opinion, the police should also be characterized as a critical capability for President Yar'Adua based on the police's demonstration of loyalty to the president and his political party, the PDP, during the corrupt 2007 election. At the direction of PDP officials, armed police highjacked ballot boxes from election officials and provided cover

while PDP members stuffed ballot boxes. SSS personnel and anti-riot police also stormed Nigeria's leading private television and seized film just before the election in what many journalists viewed as an attempt to intimidate the company who had been reporting more credible information on the state-level elections than the government-run television company.²⁵² A retired police commissioner noted that no police officer would risk his job by refusing to support Nigeria's president and his political party.²⁵³ Such support from law enforcement and the army is vital to President Yar'Adua as he faces increasing militant violence in the Delta and Bakassi, as well ethnic and religious clashes among the 250 to 300 ethnic groups.

President Yar'Adua faces a significant critical vulnerability in the Niger Delta with the increase in militant attacks against oil personnel and the oil infrastructure, both of which are critical requirements for the oil industry which, in turn, is a critical capability for President Yar'Adua and his government. Nigeria's oil and gas production is responsible for 85% of government revenue, 99% of export earnings, and 52% of the nation's GDP.²⁵⁴ The violent militant group MEND has threatened to destroy Nigeria's oil export industry, and as a "parting gift" to outgoing President Obasanjo the group bombed three oil pipelines in Bayelsa State which ended up reducing Nigeria's oil production by nearly one-third.²⁵⁵ In early January 2008, MEND detonated a remote explosive device aboard an oil tanker docked in Port Harcourt. MEND reported they used militants working inside the oil industry to stage the attack. As reported by the *Wall Street Journal*, if such reports are true then the Nigerian oil industry may be significantly more vulnerable to the militant attacks.²⁵⁶ The security of Nigeria's oil infrastructure is also of vital concern to the U.S. who received 1,139,000 barrels a day from Nigeria in 2006.²⁵⁷

The violence has taken its toll on major investors as evidenced by the Nigerian government only selling half of 45 oil exploration licenses it placed in auction in May 2007.²⁵⁸ The pull out of major investors as a result of the increasing violence could end up crippling the Nigerian economy which relies predominately on oil revenues.²⁵⁹

However, there are encouraging signs that President Yar'Adua is serious about solving the problems in the Delta. For instance, President Yar'Adua recently allocated 20% of Nigeria's federal budget for security and development projects in the Niger Delta.²⁶⁰ In fact, in December 2007, the state government officials in Bayelsa State signed a peace agreement with the state's militant organizations, however, MEND rejected the olive branch and announced it would increase attacks until its spokesman, Henry Okah, was released.²⁶¹ MEND has also argues that the Delta should receive a 50% share of local revenues, mostly which comes from oil, instead of the current federal system which grants states a mere 13% share of local revenues.²⁶²

Also, I would argue the muslim-dominated north is a critical vulnerability for the new president as well. As reported above, the muslim north's insistence on adopting Sharia law has sparked violence between the Muslims and Christians in the Sunni dominated North. In fact, in 2000 alone, clashes between the two religions resulted in roughly 2,000 deaths.²⁶³ President Yar'Adua is a devout muslim and served as the governor of Kastina State in the north until his election in 2007.²⁶⁴ However, I contend the north is still a volatile region and a source of concern for President Yar'Adua. For instance, during the election last year, 300 armed Islamic militants from a group called the Taliban raided a police station in Kano State and killed 13 policemen in revenge for the killing of an important Islamic cleric in the area.²⁶⁵ In fact, one source wiring in 2004

contends that Nigeria is ripe for exploitation by Islamic radicals due to its poor population, political turmoil, and inferior law enforcement.²⁶⁶

I contend that both the U.S. and China are critical capabilities for President Yar'Adua. There is an interesting dynamic taking place in Nigeria as China and the U.S. both have favorable relations with Nigeria. In fact, one writer asserts that China is engaged in "political warfare" with the U.S. in Nigeria and other African states.²⁶⁷ The writer, Donovan C. Chau, opines that China has adopted "political warfare" as a grand strategy to acquire political, economic, or military access to Nigeria through economic means such as economic aid, development assistance, and assistance to military and security forces. China has focused on the health and welfare of the down-trodden Nigerian people.²⁶⁸ For example, China gave Nigeria \$5,000,000 to combat malaria.²⁶⁹ China has also recently invested significantly in Nigeria's agricultural community.²⁷⁰ In effect, China is bolstering what must be considered a Nigerian critical vulnerability namely, the agricultural sector. The fact that Nigeria is no longer self-sufficient in food stuffs qualifies it is a critical vulnerability for President Yar'Adua. China also made headway in what must consider another critical vulnerability for Nigeria's President, namely the Air Force. As Donovan Chua points out, in August 2005, Nigeria signed a \$250 million contract with Chinese Corporation to one squadron of 15 Chinese strike aircraft and training aircraft.²⁷¹

As discussed earlier and perhaps most importantly, Chinese companies have invested substantially in Nigeria's oil sector and infrastructure. For example, China's national petroleum company, CNOOC, bought a Nigerian oil and gas field for \$2.3 billion.²⁷² Another Chinese company acquired the first right of refusal on four of Nigeria's

exploration blocks in exchange for a \$4 billion dollar investment in Nigeria's oil infrastructure.²⁷³ In my opinion, Chinese investments in the all-important oil sector, as well as its investments in people, the armed forces, and the economy strengthens President Yar'Adua and his position, particularly as he faces the growing menace in the Delta and perhaps Bakassi. As such, I opine that Nigeria's ongoing relationship with China is a critical capability for Nigeria's president, Yar'Adua. However, one can also argue that Chinese efforts to improve the lot of poor Nigerians could also endear them to militant groups. However, this does not appear to be the case, particularly in light of MEND's warning that Chinese investments in crude places Chinese citizens at risk of harm.²⁷⁴

On other hand, I also argue that President Yar'Adua's relationship with the U.S. must also be deemed a critical capability. President Yar'Adua had a successful meeting with President Bush at the White House in December 2007, in which President Bush praised President Yar'Adua's commitment to democracy, and, in turn, the Nigerian president Nigeria's support to America and its people.²⁷⁵ Such support from President Bush should also strengthen what could be considered a critical vulnerability for President Yar'Adua, namely his legitimacy as president of Nigeria. A December 2007 CRS Report for Congress reported that the Bush Administration also considers Nigeria an important ally in the global war on terror, and that the U.S. military provides the country with military training which provides an opportunity to foster professionalism, respect for human rights, and civilian governance.²⁷⁶ On the social and economic front, the United States Agency for International Development (USAID) is a significant donor in Nigeria, and the U.S. gave Nigeria \$163.6 million for AIDs relief in 2006. The Bush

Administration recently requested over \$533 million in assistance to Nigeria, and the U.S. is assisting with programs to improve agricultural production and curb the violence in the Delta.²⁷⁷

The U.S. support to President Yar'Adua, particularly the Bush Administration's position that Nigeria is an important ally in the war on terror, provides President Yar'Adua with a critical capability particularly as he faces the growing violence in his country as well as challenges to his legitimacy. Perhaps America would be more likely to intervene to protect President Yar'Adua against an attempted coup or militant attack in order to preserve the stability of a country in which the U.S. relies heavily on for oil imports, and considers an ally in the war on terror. However, the U.S. government is alarmed by one of President Yar'Adua's critical vulnerabilities, namely the significant trafficking of drugs through Nigeria. It is reported that Nigerian couriers are responsible for roughly 35%-40% of all the heroin coming into America.²⁷⁸

Nigeria's oil and gas production is an important critical capability and I would argue it is the country's operational center of gravity. As mentioned earlier, the oil and gas sector dominates the nation economy, and is its principal source of revenue. Nigeria is the eleventh-largest oil producer on the planet.²⁷⁹ Therefore, the oil sector must surely fund the other critical capabilities I mentioned earlier such as the army and security forces, and is responsible for much interest from the U.S. and China. However, as I discussed earlier, the oil sector faces several critical vulnerabilities, including its infrastructure and oil personnel. As discussed earlier, oil thieves known as "bunkerers" steal billions of dollars of worth of oil which some of the proceeds going to fund militant groups.²⁸⁰ Groups such as MEND have attacked oil installations and kidnapped foreign

oil workers.²⁸¹ A recent militant attack on the Nigerian oil industry helped cause the price of oil to hit \$100 a barrel.²⁸² The oil infrastructure has also faced years of government neglect, and in fact, its own oil refineries are in such a bad state that this oil-rich country is forced to import its own fuel.²⁸³ However, there are some good news stories for President Yar'Adua which includes reports that the Nigerian economy is now growing at 6%.²⁸⁴

Conclusion

After analyzing Nigeria's PMESII operational environment, I've determined that Nigeria's president is the country's strategic center of gravity, "the source of power that provides moral or physical strength, freedom of action, or will to act."²⁸⁵ In Nigeria's current environment, the newly elected president, Yar'Adua, enjoys the loyalty of the Nigerian army and security forces which are important critical capabilities, ie., "crucial enablers" for the presidency.²⁸⁶ The Nigerian army continues to engage violent militants in the Niger Delta and Islamic north, and recently obeyed former President Obasanjo's order to leave the controversial Bakassi peninsula. The president's position as the strategic center of gravity is further strengthened by Nigeria's relationship with two significant allies, the U.S., and China. On the other side of the coin, President Yar'Adua has a wealth of oil resources, however, he faces several challenges to his governance, including challenges to his legitimacy, militant attacks on the oil sector and government troops, unrest in the Bakassi, as well as growing unrest among the hundreds of different ethnic and religious groups, including violent radical Islamic activity in the north. However, in my opinion, President Yar'Adua has the backing and support of the Nigerian army and security forces, and the apparent support of the U.S. and China, who

continue to invest in the country. As discussed earlier, both the U.S. and China continue to provide military aid to the Nigerian armed forces, a critical capability for the Nigerian president.

The operational center of gravity, Nigeria's oil production, is also a critical capability for President Yar'Adua. Nigeria's oil sector provides Nigeria with most of its revenue. However, its important infrastructure is old and under frequent attack by violent militant groups such as MEND who are fighting for concession, including a significant slice of the oil revenue in their local area. President Yar'Adua maintains the loyalty of the Nigerian army who continue to engage the militants. President Yar'Adua's position as the strategic center of gravity is further strengthened by Nigeria's growing economy.

Also, there was encouraging news in late 2007, when it was reported that the Bakassi state government signed a peace agreement with militant groups in the region.²⁸⁷ However, it appears that MEND will remain a significant thorn in President Yar'Adua's side. However, with the backing of the army and two considerable allies he should remain the country's strategic center of gravity in the fight against the militants and his continued efforts to reform the country.

Endnotes

¹ Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, eds. and trans. (Princeton, NJ: Princeton University Press), 1984, 595-596.

² Rudolph M. Janiczek, *A Concept at the Crossroads: Rethinking the Center of Gravity* (Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, October 2007), 1.

³ Mark P. Krieger, Jr., "We the People Are Not the Center of Gravity in an Insurgency," *Military Review* (July-August 2007): 96.

⁴ U.S. Joint Chiefs of Staff, *Joint Operations*, Joint Publication 3-0 (Washington, D.C.: U.S. Joint Chiefs of Staff, 17 September 2006), GL-8.

⁵ Ibid., IV-10.

⁶ U.S. Joint Chiefs of Staff, *Joint Operation Planning*, Joint Publication 5-0 (Washington, D.C.: U.S. Joint Chiefs of Staff, 26 December 2006), IV-8.

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

¹⁰ U.S. Joint Chiefs of Staff, Joint Publication 3-0, IV-10.

¹¹ Ibid.

¹² Ibid., IV-10 to IV-11.

¹³ Ibid., IV-10.

¹⁴ Dr. Joseph Strange, *Centers of Gravity and Critical Vulnerabilities: Building on the Clausewitzian Foundation So We Can All Speak the Same Language*, Perspective on Warfighting Number Four, 2d ed. (Quantico, VA: Marine Corps Association, 1996), 3.

¹⁵ U.S. Joint Chiefs of Staff, Joint Publication 3-0, IV-10.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ U.S. Joint Chiefs of Staff, Joint Publication 5-0, IV-8.

²⁰ Ibid., IV-9.

²¹ Ibid., III-16.

²² Ibid., IV-9.

²³ Ibid., IV-10.

²⁴ U.S. Central Intelligence Agency, *The World Fact Book*, available from <http://www.cia.gov/library/publications/the-world-factbook/geos/ni.html>; Internet; accessed 30 December 2007.

²⁵ U.S. Department of State, Bureau of African Affairs, October 2007; available from <http://www.state.gov/r/pa/ei/bgn/2836.htm>; Internet; accessed 8 January 2008.

- ²⁶ Ibid.
- ²⁷ Ibid.
- ²⁸ Ibid.
- ²⁹ Ibid.
- ³⁰ Central Intelligence Agency, *The World Fact Book*.
- ³¹ Ibid.
- ³² International Crisis Group, "Failed Elections, Failing State?" *Africa Report*, no. 126 (30 May 2007): 1.
- ³³ Ibid., Executive Summary and Recommendations.
- ³⁴ Ibid.
- ³⁵ Ibid.
- ³⁶ Ben Rawlence and Chris Albin-Lackey, "Nigeria's 2007 General Elections: Democracy in Retreat," *African Affairs* 106/424 (July 2007): 499.
- ³⁷ Ibid.
- ³⁸ Ibid.
- ³⁹ International Crisis Group, "Failed Elections, Failing State?" Executive Summary and Recommendations.
- ⁴⁰ Ibid.
- ⁴¹ Rawlence and Albin-Lackey, 497.
- ⁴² International Crisis Group, "Failed Elections, Failing State?" 5.
- ⁴³ Ibid.
- ⁴⁴ Ibid.
- ⁴⁵ Ibid.
- ⁴⁶ Ibid.
- ⁴⁷ Ibid.
- ⁴⁸ Ibid.
- ⁴⁹ Rawlence and Albin-Lackey, 503.

⁵⁰ Charles W. Corey, *United States Diplomatic Mission to Nigeria Home Page*, "United States, Nigeria Renew Ties: Yar'Adua and Bush Discuss Array of Issues at White House," 13 December 2007; available from http://nigeria.usembassy.gov/prog_12132007.html; Internet; accessed 19 December 2007.

⁵¹ Ibid.

⁵² Ibid.

⁵³ Ibid.

⁵⁴ Lauren Ploch, *Nigeria: Current Issues*, Report to Congress (Washington, D.C.: Congressional Research Service, 1 December 2007), 8.

⁵⁵ International Crisis Group, "Failed Elections, Failing State?" 7.

⁵⁶ Ploch, 8.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid., 5

⁶⁰ Ibid.

⁶¹ Ibid.

⁶² Ibid.

⁶³ Charles W. Corey.

⁶⁴ Ploch, 8.

⁶⁵ Ibid.

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Paul M. Lubeck, Michael J. Watts, and Ronnie Lipschutz, "Convergent Interests: U.S. Energy Security and the 'Securing' of Nigerian Democracy," *International Policy Report*, (February 2007): 1

⁶⁹ BBC News, "Oil Pledge from Nigeria President," 29 May 2007; available from <http://news.bbc.co.uk/2/hi/africa/6702287.stm>; Internet; accessed 16 December 2007.

⁷⁰ Lubeck, Watts and Lipschutz, 1.

⁷¹ Tom O'Neill, "Curse of the Black Gold: Hope and Betrayal in the Niger Delta," *National Geographic Magazine* 211 (February 2007): 97-98.

⁷² Ibid.

⁷³ International Crisis Group, "The Swamps of Insurgency: Nigeria's Delta Unrest," *Africa Report*, no. 115 (3 August 2006): Executive Summary and Recommendations.

⁷⁴ O'Neill, 98.

⁷⁵ Ibid., 116.

⁷⁶ Ibid.

⁷⁷ Ibid.

⁷⁸ Steve Hargreaves, "Oil Kicks Off Year by Hitting \$100," 2 January 2008; available from <http://www.money.cnn.com/2008/01/02markets/oil/index.htm>; Internet; accessed 27 January 2008.

⁷⁹ Ted Dagne, *Nigeria in Political Transition*, Report to Congress (Washington, D.C.: Congressional Research Service, 28 July 2006), 7.

⁸⁰ International Crisis Group, "The Swamps of Insurgency: Nigeria's Delta Unrest," Executive Summary and Recommendations.

⁸¹ Ibid.

⁸² Ibid.

⁸³ Ibid.

⁸⁴ O'Neill, 116.

⁸⁵ Ploch, 19-20.

⁸⁶ BBC News, "Nigeria Hands Bakassi to Cameroon," 14 August 2006, available from <http://news.bbc.co.uk/2/hi/africa/4789647.stm>; Internet; accessed 30 December 2007.

⁸⁷ Ploch, 19.

⁸⁸ Ibid., p.19,20.

⁸⁹ Ibid., p.20.

⁹⁰ Ibid.

⁹¹ Ibid.

⁹² Ibid.

⁹³ Ibid.

⁹⁴ Ibid.

⁹⁵ ABC News, "Up to 21 Cameroon Troops Killed in Bakassi," 14 November 2007, available from <http://www.abc.net.au/news/stories/2007/11/14/2090049.htm>; Internet; accessed 30 December 2007.

⁹⁶ Ibid.

⁹⁷ Musa Simon Reef, "Discordant Tunes Over Bakassi," 2 December 2007, available from <http://allafrica.com/stories/printable/200712030952.html>; Internet; accessed 31 December 2007.

⁹⁸ Ploch, 20.

⁹⁹ Ibid.

¹⁰⁰ Cosmas Ekpunobi, "Bakassi Gone, Yar'Adua Tells Senate," 12 December 2007, available from <http://allafrica.com/stories/printable/200712120582.html>; Internet; accessed 30 December 2007.

¹⁰¹ IRIN, "Cameroon-Nigeria: Cameroon Flag Hoisted over Bakassi as Nigerian Troops Pull Out," 14 August 2006; available from <http://www.irinnews.org/report.aspx?ReportId=60324>; Internet; accessed 30 December 2007.

¹⁰² BBC News, "Nigeria Hands Bakassi to Cameroon," 14 August 2006, available from <http://news.bbc.co.uk/2/hi/africa/4789647.stm>; Internet; accessed 30 December 2007.

¹⁰³ IRIN.

¹⁰⁴ BBC News, "Nigeria Hands Bakassi to Cameroon.

¹⁰⁵ Ibid.

¹⁰⁶ Jane's Sentinel Security Assessment-Central Africa, "Army, Nigeria," 15 October 2007; [database on-line]; available from Jane's; accessed 31 December 2007.

¹⁰⁷ Ibid.

¹⁰⁸ Ploch, 21.

¹⁰⁹ Ibid.

¹¹⁰ *Ibid.*, p.1.

¹¹¹ *Ibid.*, p.1.

¹¹² Jane's Sentinel Security Assessment-Central Africa, "Army, Nigeria," 15 October 2007; [database on-line]; available from Jane's; accessed 31 December 2007.

¹¹³ *Ibid.*, 3.

¹¹⁴ *Ibid.*

¹¹⁵ U.S. Department of State, Bureau of African Affairs, 11.

¹¹⁶ Ibid.

¹¹⁷ Ibid.

¹¹⁸ Ibid.

¹¹⁹ Jane's Sentinel Security Assessment-Central Africa, "Navy, Nigeria," 3 August 2007; [database on-line]; available from Jane's; accessed 31 December 2007, 2..

¹²⁰ Ibid.

¹²¹ U.S. Department of State, Bureau of African Affairs, 11.

¹²² Ibid.

¹²³ Jane's Sentinel Security Assessment-Central Africa, "AirForce,Nigeria," 11 December 2007; [database on-line]; available from Jane's; accessed 31 December 2007.

¹²⁴ Esther Pan, "China, Africa, and Oil," 26 January 2007, available from <http://www.cfr.org/publication/9557/>; Internet; accessed 19 December 2007, 2.

¹²⁵ Jane's Sentinel Security Assessment-West Africa, "Natural Resources, Nigeria," 8 March 2007; [database on-line]; available from Jane's; accessed 31 December 2007, 3.

¹²⁶ Ploch, 12.

¹²⁷ Ibid.

¹²⁸ Pan, 2.

¹²⁹ Ibid.

¹³⁰ Ibid.

¹³¹ U.S. Department of State, Bureau of African Affairs,.8.

¹³² Ibid.

¹³³ Dagne, 6.

¹³⁴ Jane's Sentinel Security Assessment-West Africa, "Natural Resources, Nigeria," 8 March 2007; [database on-line]; available from Jane's; accessed 31 December 2007, 2.

¹³⁵ Ibid.

¹³⁶ Pan, 1.

¹³⁷ Ibid.

¹³⁸ Ian Taylor, "Oil Diplomacy," *International Affairs* 82 (2006): 943.

¹³⁹ Pan, 2.

¹⁴⁰ Taylor, 943.

¹⁴¹ Ibid.

¹⁴² Ibid.

¹⁴³ Pan, 1.

¹⁴⁴ Taylor, 938.

¹⁴⁵ *Ibid.*, p.944-945.

¹⁴⁶ Chris Hogg, "China Oil Firm Buys into Nigeria," 9 January 2006; available from <http://news.bbc.co.uk/2/hi/business/4594058.stm>; Internet; accessed 30 December 2007, 1.

¹⁴⁷ Ibid.

¹⁴⁸ Ibid.

¹⁴⁹ International Business Times, "Nigeria Gives China Oil Rights for Investment," 27 April 2006; available from http://uk.ibtimes.com/services/pop_print.htm?id=1205; Internet; accessed 1 January 2008.

¹⁵⁰ Ibid.

¹⁵¹ Ibid.

¹⁵² Ibid.

¹⁵³ Ibid.

¹⁵⁴ Toye Olori, "Nigeria: Oil-Hungry China to Help Revamp Railway," 3 February 2007; available from <http://ipsnews.net/print.asp?idnews=36432>; Internet; accessed 30 December 2007, 1-3.

¹⁵⁵ Ibid., p.1.

¹⁵⁶ Ibid. p.2.

¹⁵⁷ Ibid.

¹⁵⁸ Ibid.

¹⁵⁹ Taylor, 954.

¹⁶⁰ Ibid.

¹⁶¹ Ibid.

¹⁶² Edward Harris, "Captor Release Nine Chinese Oil Workers in Nigeria," 5 February 2007; available from http://www.mg.co.za/articlePage.aspx?articleid=/breaking_news/ ...; Internet; accessed 1 January 2008, 1-2.

¹⁶³ Ibid.

¹⁶⁴ Ibid.

¹⁶⁵ O'Neill, 97.

¹⁶⁶ U.S. Department of State, Bureau of African Affairs, 8.

¹⁶⁷ O'Neill, 97.

¹⁶⁸ U.S. Department of State, Bureau of African Affairs, 8.

¹⁶⁹ Ibid.

¹⁷⁰ Jane's Sentinel Security Assessment –Central Africa, "ECONOMY, Nigeria," 3 August 2007; [database on-line]; available from Jane's; accessed 31 December 2007, 4.

¹⁷¹ Ibid.

¹⁷² Ibid.

¹⁷³ U.S. Department of State, Bureau of African Affairs, 8.

¹⁷⁴ Ibid.

¹⁷⁵ Ibid., 8-9.

¹⁷⁶ Ibid., 9.

¹⁷⁷ Jane's Sentinel Security Assessment-Central Africa, "ECONOMY, Nigeria," 3 August 2007; [database on-line]; available from Jane's; accessed 31 December 2007, 4.

¹⁷⁸ Lubeck, Watts and Lipschutz, 7.

¹⁷⁹ Ibid.

¹⁸⁰ Ibid.

¹⁸¹ BBC News, "Oil Pledge from Nigeria President.

¹⁸² Ploch, 11.

¹⁸³ Lubeck, Watts and Lipschutz, 9.

¹⁸⁴ Ibid., 1.

¹⁸⁵ Ibid., 9.

¹⁸⁶ Ibid.

¹⁸⁷ Ibid.

¹⁸⁸ Ibid.

¹⁸⁹ Dagne, 9.

¹⁹⁰ Ibid.

¹⁹¹ Ibid.

¹⁹² *Ibid.*

¹⁹³ "World Middle East & Africa, That's All They Needed," 6 December 2007; available from http://www.economist.com/PrinterFriendly.cfm?story_id=10263174; Internet; accessed 30 December 2007.

¹⁹⁴ Ibid.

¹⁹⁵ Ibid.

¹⁹⁶ Ibid.

¹⁹⁷ Ibid.

¹⁹⁸ Ibid.

¹⁹⁹ "World Middle East & Africa, "A Nation in Waiting," 18 October 2007; available from http://www.economist.com/PrinterFriendly.cfm?story_id=10263174; Internet; accessed 30 December 2007.

²⁰⁰ Ibid.

²⁰¹ Ibid.

²⁰² Lubeck, Watts and Lipschutz, 7.

²⁰³ Ploch, 1.

²⁰⁴ Ibid., p.1-2.

²⁰⁵ U.S. Department of State, Bureau of African Affairs, 1.

²⁰⁶ Ploch, 1.

²⁰⁷ Ibid.

²⁰⁸ Ibid.

²⁰⁹ Lubeck, Watts and Lipschutz, 7.

²¹⁰ Ibid., p.8.

²¹¹ Ibid.

²¹² Ibid.

²¹³ Ibid.

²¹⁴ Ibid.,p.9.

²¹⁵ Jane's Sentinel Security Assessment – West Africa, "Executive Summary, Nigeria," 3 August 2007; [database on-line]; available from Jane's; accessed 31 December 2007, 2.

²¹⁶ World Middle East & Africa, An Eerie Lull in the Violent Delta," 8 November 2007; available from http://www.economist.com/PrinterFriendly.cfm?story_id=10111026; Internet; accessed 30 December 2007, 2.

²¹⁷ Ibid.

²¹⁸ Ibid.

²¹⁹ Ibid.

²²⁰ Ibid.

²²¹ Ibid.

²²² Jane's Sentinel Security Assessment-West Africa,"Executive Summary, Nigeria, "3 August 2007; [database on-line]; available from Jane's; accessed 31 December 2007, 2.

²²³ Ibid.

²²⁴ Dagne, 8.

²²⁵ U.S. Department of State, Bureau of African Affairs, 10.

²²⁶ Ibid.

²²⁷ Ibid.

²²⁸ Ibid.

²²⁹ Jane's Sentinel Security Assessment-West Africa, "Executive Summary, Nigeria," 17 October 2007, [database on-line]; available from Jane's; accessed 31 December 2007, 1.

²³⁰ Ibid.

²³¹ Olori.

²³² Ibid.

²³³ Ibid.

²³⁴ Jane's Sentinel Security Assessment-West Africa, "Infrastructure, Nigeria," 17 October 2007, [database on-line]; available from Jane's; accessed 31 December 2007, 3.

²³⁵ Olori.

²³⁶ Ibid.

²³⁷ U.S. Department of State, Bureau of African Affairs, 10.

²³⁸ Jane's Sentinel Security Assessment-West Africa, "Infrastructure, Nigeria," 17 October 2007, [available on-line]; available from Jane's; accessed 31 December 2007, 4.

²³⁹ "World Middle East & Africa, A Nation in Waiting," 18 October 2007; available from http://www.economist.com/world/africa/PrinterFriendly.cfm?story_id=9991317; Internet; accessed 30 December 2007, 2.

²⁴⁰ Ibid.

²⁴¹ Ibid.

²⁴² Ibid.

²⁴³ Online NewsHour—"Nigeria in Transition: Nigeria's Oil Industry: A cursed Blessing?", available from <http://www.pbs.org/newshour/bb/Africa/Nigeria/oil.html>; Internet; accessed 14 January 2008: p.1.

²⁴⁴ O'Neill, 97.

²⁴⁵ Ibid.

²⁴⁶ Ibid.

²⁴⁷ Rawlence and Albin-Lackey, 499.

²⁴⁸ International Crisis Group, "Failed Elections, Failing State?", 5.

²⁴⁹ Jane's Sentinel Security Assessment-West Africa, "Infrastructure, Nigeria," 17 October 2007, [database on-line]; available from Jane's; accessed 31 December 2007, 7.

²⁵⁰ Ibid, 6.

²⁵¹ Ploch, 21.

²⁵² International Crisis Group, "Failed Elections, Failing State?" 5.

²⁵³ Ibid.

²⁵⁴ Ploch, 12.

²⁵⁵ J. Peter Pham, Ph.D., "Vulnerability of Nigerian Oil Infrastructure Threatens U.S. Interest," 17 May 2007, available from <http://worlddefensereview.com/includes/pham051707pr.html>; Internet; accessed 13 January 2008, 1.

²⁵⁶ Chip Cummins, "Nigeria Rebels Step Up Attacks With Explosion of Oil Tanker," 11 January 2008; available from http://online.wsj.com/article/SB120005894563383785.html?mod=googlenews_wsj; Internet; accessed 13 January 2008, p.1-2.

²⁵⁷ Pham, 1.

²⁵⁸ *ibid.*, 2.

²⁵⁹ *Ibid.*, 2.

²⁶⁰ Ploch, 18.

²⁶¹ *Ibid.*, 17-18.

²⁶² *Ibid.*, 18.

²⁶³ *Ibid.*, 15.

²⁶⁴ *Ibid.*, 11.

²⁶⁵ *Ibid.*, 7.

²⁶⁶ Ariel Cohen, Ph.D., and Brett D. Schaefer, "Addressing Nigeria's Economic Problems and the Islamic Terrorist Threat," 19 May 2004; available from www.heritage.org/research/africa/em933.cfm; Internet; accessed 11 February 2008, 1.

²⁶⁷ Donavon C. Chau, *Political Warfare In Sub-Saharan Africa: U.S. Capabilities In Ethiopia, Kenya, Nigeria, And South Africa*; (Carlisle Barracks, U.S. Army War College, Strategic Studies Institute, 2007), p.v.

²⁶⁸ *Ibid.*, 35.

²⁶⁹ International Business Times, "Nigeria Gives China Oil Rights for Investment," 27 April 2006, available from http://uk.ibtimes.com/services/pop_print.htm?id=1205; Internet; accessed 1 January 2008.

²⁷⁰ Chau, 37,38.

²⁷¹ *Ibid.*, 42.

²⁷² Hogg, 1.

²⁷³ International Business Times, "Nigeria gives China oil rights for investment," 27 April 2006, available from http://uk.ibtimes.com/services/pop_print.htm?id=1205; Internet; accessed 1 January 2008.

²⁷⁴ Taylor, 954

²⁷⁵ Charles W. Corey.

²⁷⁶ Ploch, 21.

²⁷⁷ Ibid., 22.

²⁷⁸ Ted Dagne, 9.

²⁷⁹ Pan, 2.

²⁸⁰ Lubeck, Watts and Lipschutz, 9.

²⁸¹ O'Neill, 97-98.

²⁸² Steve Hargreaves, "Oil Kicks Off Year by Hitting \$100," 2 January 2008; available from <http://www.money.cnn.com/2008/01/02markets/oil/index.htm>; Internet; accessed 27 January 2008.

²⁸³ Online NewsHour—"Nigeria in Transition: Nigeria's Oil Industry: A cursed Blessing?"

²⁸⁴ World Middle East & Africa, "A nation in waiting."

²⁸⁵ U.S. Joint Chiefs of Staff, Joint Publication 3-0, GL-8.

²⁸⁶ U.S. Joint Chiefs of Staff, Joint Publication 3-0, IV-10.

²⁸⁷ Ploch, 18.

